

CLAIMS

What is claimed is:

1. A sectional refrigerator, comprising:
a plurality of cooling cabinets having storage compartments with openings;
a plurality of doors covering and uncovering the openings of the cooling cabinets;
a cool air generating part generating cool air refrigerating the storage compartments; and
a cool air supplying part supplying the cool air generated in the cool air generating part into the storage compartments,
wherein the plurality of cooling cabinets are detachably connectable to each other in any orientation forming a shape corresponding to a seating place of the sectional refrigerator.
2. The sectional refrigerator according to claim 1, wherein a combination of the cooling cabinets forms a hexahedron shape.
3. The sectional refrigerator according to claim 1, wherein the plurality of cooling cabinets comprises:
at least one first cooling cabinet having a predetermined size, and
at least one second cooling cabinet having a size smaller than that of the first cooling cabinet, wherein the number of the second cooling cabinets is a number subtracting the number of the at least one first cooling cabinet from the number of total cooling cabinets.
4. The sectional refrigerator according to claim 1, wherein the cool air generating part comprises thermoelectric semiconductor elements respectively provided in the cooling cabinets.
5. The sectional refrigerator according to claim 1, wherein the cool air generating part comprises:
evaporators provided in the plurality of cooling cabinets, respectively,
a compressor compressing refrigerant supplying cool air into the evaporators, and
a condenser condensing the compressed refrigerant compressed in the compressor, wherein the compressor and the condenser are installed in a component chamber.

6. The sectional refrigerator according to claim 5, wherein the component chamber is separate from the cooling cabinet, the sectional refrigerator further comprises:

refrigerant transporting pipes connecting the condenser and the evaporators, and
refrigerant returning pipes connecting the evaporators and the compressor and returning refrigerant from each evaporator to the compressor.

7. The sectional refrigerator according to claim 5, wherein the component chamber is housed in one of the plurality of cooling cabinets.

8. The sectional refrigerator according to claim 6, wherein the refrigerant transporting pipes are provided with electronic expansion valves.

9. The sectional refrigerator according to claim 5, wherein a cool air supplying part comprises a leading duct provided at the backside of the storage compartment, leading the cool air generated in each evaporator into the respective storage compartment.

10. The sectional refrigerator according to claim 9, further comprising at least one coupler connecting the refrigerant transporting pipes and the refrigerant returning pipes with each evaporator.

11. The sectional refrigerator according to claim 10, wherein the compressor, the condenser, the electronic expansion valves, and the evaporators form a refrigeration cycle, and the refrigeration cycle further comprises an inverter circuit.

12. A sectional refrigerator, comprising:
a plurality of cooling cabinets, wherein each of the plurality of cooling cabinets is detachably connectable to any other one of the plurality of cooling cabinets in any orientation;
a cool air generating part generating cool air refrigerating at least one of cooling cabinets; and
a cool air supplying part supplying the cool air generated in the cool air generating part to at least one of the cooling cabinets.

13. The sectional refrigerator according to claim 12, wherein the plurality of cooling cabinets comprises a plurality of layers of cooling cabinets and the plurality of layers form a hexahedron shape.

14. The sectional refrigerator according to claim 12, wherein the cool air generating part comprises one or more thermoelectric semiconductor elements provided in each of the cooling cabinets.

15. The sectional refrigerator according to claim 12, wherein the cool air generating part comprises:

one or more compressors,

one or more condensers connected to the compressors, and

a plurality of evaporators connected to the compressors and the condensers,

wherein at least one of the plurality of evaporators is provided in each of the cooling cabinets.

16. The sectional refrigerator according to claim 15, wherein the compressors and the condensers are provided in other cabinets detachably connectable to the cooling cabinets.

17. A method of refrigeration, comprising;
determining a capacity of refrigeration required;
seating a first cooling cabinet having a predetermined size; and
connecting at least one second detachable cooling cabinet to the first cooling cabinet so the capacity of the first cooling cabinet plus the capacity of the at least one second detachable cooling cabinet is at least as great as a capacity of refrigeration required.

18. The method of refrigeration, according to claim 17, further comprising
generating cool air; and
supplying the generated cool air generated to at least one of the first cooling cabinet and the at least one second detachable cooling cabinet.

19. The method of refrigeration, according to claim 17, further comprising
generating cool air; and
supplying the generated cool air generated to each of the first cooling cabinet and the at least one second detachable cooling cabinet.

20. A sectional refrigerator, comprising:

a plurality of cooling cabinets detachably connectable from each other in any orientation and having storage compartments with doors;

a cool air generating part generating cool air refrigerating the cooling cabinets comprising thermoelectric semiconductor elements or evaporators provided in each of the plurality of cooling cabinets; and

a cool air supplying part supplying the generated cool air to each of the cooling cabinets cool air generated in the cool air generating part into the storage compartment.

21. The sectional refrigerator according the claim 20, the cool air generating part further comprises:

compressors connected to the evaporators, and

condensers connected to the evaporators, wherein the compressors and the condensers are housed in other cabinets detachably connectable to the cooling cabinets.